

Attorney Docket No.: ISPH-0567  
Inventors: Bennett et al.  
Serial No.: 09/938,048  
Filing Date: August 23, 2001  
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#### REMARKS

Claims 1, 2, 4-8 and 10-14 are pending in the instant application. Claims 12-14 have been withdrawn from consideration. Claims 1, 2, 4-8, 10 and 11 have been rejected. Claims 12-14 have been canceled. Claim 1 has been amended. No new matter has been added by these amendments. Reconsideration is respectfully requested in light of these amendments and the following remarks.

#### I. Election/Restriction

The Restriction Requirement wherein Applicants have elected Group I and the species "modulation of inflammation", has been deemed proper and made Final. Accordingly, claims 12-14 have been canceled, with Applicants reserving the right to file continuing applications on the canceled subject matter.

#### II. Rejection of Claims Under 35 U.S.C. 102(b)

The rejection of claims 1, 2, 4, 5, 6, 10 and 11 under 35 U.S.C. 102(b) as being anticipated by Baker et al. (US Patent 6,080,580) has been maintained. The Examiner suggests that this patent discloses use of an antisense library targeted to TNF- $\alpha$ , a cytokine, which is involved in inflammatory responses, including adding these antisense oligonucleotides to cells and measuring

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expression of the TNF- $\alpha$  gene following such treatment. The Examiner has suggested that Applicants arguments are not persuasive because the recitation of identifying genes in the preamble of the claims has not been given patentable weight. Applicants respectfully traverse this rejection.

At the outset, Applicants have amended claim 1, and by dependency claims 2, 5, 6, 10 and 11, to recite that the instant method clearly involves a step of identifying genes involved in an inflammatory response. Support for this amendment can be found throughout the specification as filed.

As discussed in the previous Office Action response, Baker et al. (US Patent 6,080,580) disclose the use of antisense compounds targeted to TNF- $\alpha$  for inhibition of expression of this gene in cells *in vitro*. Nowhere does this patent, however, teach a method for identifying a gene involved in a response such as claimed in the instant invention. The present method specifies contacting cells, tissues or organisms that are capable of exhibiting an inflammatory response after a stimulus has been applied with a library of antisense oligonucleotides prior to treatment with a stimulus, determining which antisense oligonucleotides modulate the inflammatory response wherein the antisense oligonucleotides that modulate the response correspond to genes involved in inflammation, and thus identifying the genes involved in inflammation. Nowhere

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does the patent of Baker et al. teach a method where the goal is to identify a gene. In this patent, the gene is used to design oligonucleotides, the oligonucleotides are not used to identify a gene. Accordingly, this patent teaches a different method from the method of the instant invention, failing to teach the limitations of the claims as now amended, and cannot anticipate the claimed invention. Withdrawal of this rejection is therefore respectfully requested.

The rejection of claims 1, 2, 7, 8, 10 and 11 under 35 U.S.C. 102(b) as being anticipated by Bennett et al. (US Patent 5,514,788) has been maintained. The Examiner suggests that this patent discloses use of antisense targeted to various cell adhesion molecules that are involved in inflammation, specifically ICAM, VCAM and ELAM. The Examiner suggests that this patent discloses inhibition of these adhesion proteins with antisense oligonucleotides from antisense libraries as well as measurement of levels of gene expression in cells after treatment of the cells with antisense and prior to challenge of the cells with various cytokines. The Examiner further suggests that the recitation of identification of genes in the claim preamble has been given no patentable weight. Applicants respectfully traverse this rejection.

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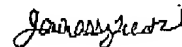
As discussed *supra*, the claims have been amended to recite the specific step of identification of genes involved in the inflammatory process. Bennett et al. (US Patent 5,514,788) disclose the use of antisense compounds targeted to ICAM, ELAM or VCAM for inhibition of expression of the genes encoding each of these cell adhesion molecules in cells *in vitro*. Nowhere does this patent, however, teach a method for identifying a gene involved in a response such as claimed in the instant invention. The present method specifies contacting cells, tissues or organisms that are capable of exhibiting an inflammatory response after a stimulus has been applied with a library of antisense oligonucleotides prior to treatment with a stimulus, determining which antisense oligonucleotides modulate the inflammatory response wherein the antisense oligonucleotides that modulate the response correspond to genes involved in inflammation, and then identifying the genes involved in the inflammatory response. Nowhere does the patent of Baker et al. teach a method where the goal is to identify a gene. In this patent, the gene is used to design oligonucleotides, the oligonucleotides are not used to identify a gene. Accordingly, this patent teaches a different method from the method of the instant invention, failing to teach the limitations of the claims, and cannot anticipate the invention as now claimed. Withdrawal of this rejection is therefore respectfully requested.

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### III. Conclusion

Applicants believe that the foregoing comprises a full and complete response to the Office Action of record. Accordingly, favorable reconsideration and subsequent allowance of the pending claims is earnestly solicited.

Respectfully submitted,



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